



United States  
Environmental Protection  
Agency

Office of Public Affairs  
Region 5  
77 West Jackson Blvd.  
Chicago, IL 60604

Illinois Indiana  
Michigan Minnesota  
Ohio Wisconsin

EPA Region 5 Records Ctr.



238524

## On-Site Treatment Underway

Modifications Complete

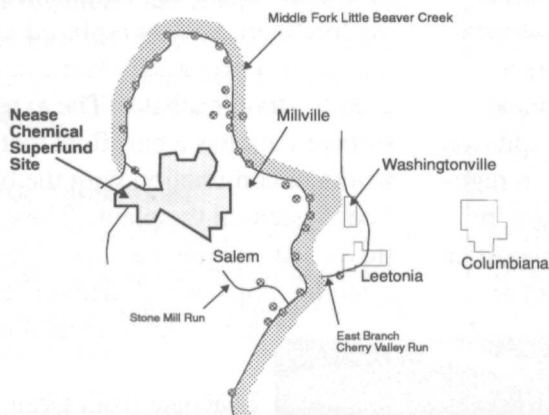
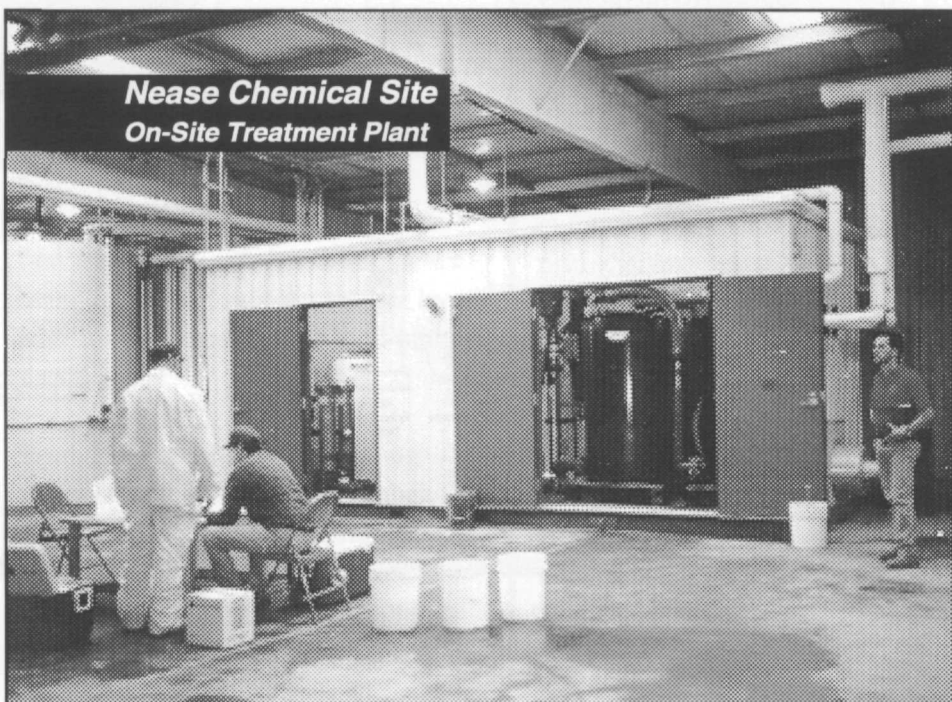
Nease Chemical Superfund Site

Salem, Ohio

September 1995

### *This fact sheet . . .*

- highlights the on-site treatment plant.
- provides an update on other site activities.
- lists sources to contact for additional information.



*The Nease Chemical Superfund site consists of 44 acres located northeast of the city of Salem, Ohio, on Alternate Route 14.*

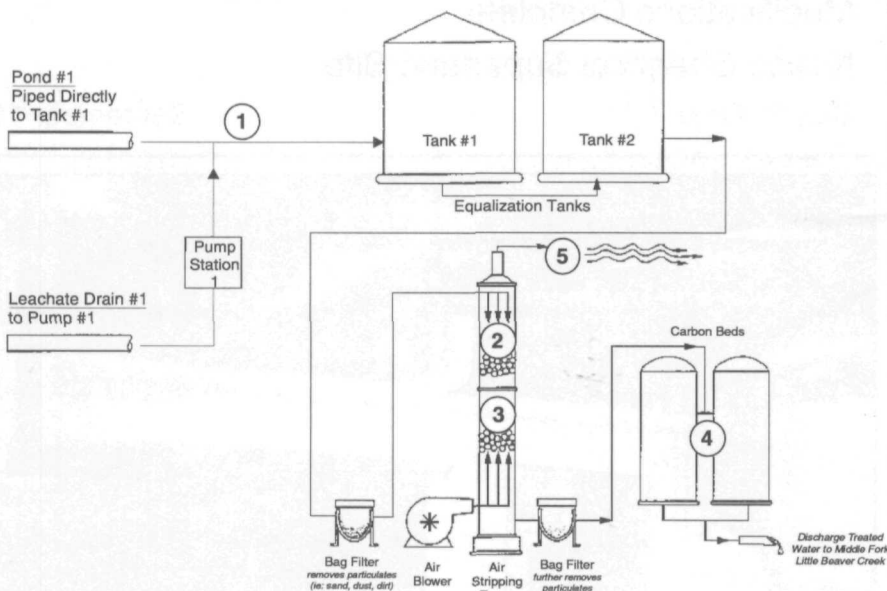
Modifications to on-site treatment of leachate, surface water, and ground water at the Nease Chemical Superfund site are complete, and treatment plant operations are underway. The U.S. Environmental Protection Agency (U.S. EPA), in cooperation with the

Ohio Environmental Protection Agency (Ohio EPA), approved the modifications and oversaw their implementation. This fact sheet highlights the on-site treatment plant. It also provides an update on other site activities, and sources to contact for additional information.



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## Leachate Collection and Treatment System Diagram



1. Contaminated ground water and leachate are withdrawn from leachate collection pumps.

2. Contaminated water is distributed uniformly over loosely packed plastic modules.

3. Water cascades down through the plastic modules. The droplets are exposed to air forced upward through the tower. This process strips VOCs from the water.

4. The treated water is then filtered with carbon to remove non-VOCs such as mirex, and discharged into the creek in compliance with the requirements of the wastewater discharge permits.

5. Air containing a small percentage of residual VOCs is filtered with carbon before being released into the atmosphere. This process will remove the majority of VOCs so that the low level of emissions is not considered hazardous to human health or the environment.

## On-Site Treatment

The on-site treatment plant was built in 1993. During pilot tests at the plant, problems with the treatment process were discovered. As a result, modifications were made. Modifications included the addition of a large equalization tank to regulate the flow of leachate taken into the treatment plant. Other modifications included the addition of an

external storage tank, and new ball floats throughout the plant.

The external storage tank added to the treatment system replaced an old rail car that previously had been used to store leachate. The external storage tank has a ball float that works in conjunction with the ball float system in the plant. These ball floats activate the leachate collection system pumps, which deliver leachate to the treatment plant.

aluminum and iron that clog the carbon beds, reducing treatment effectiveness.

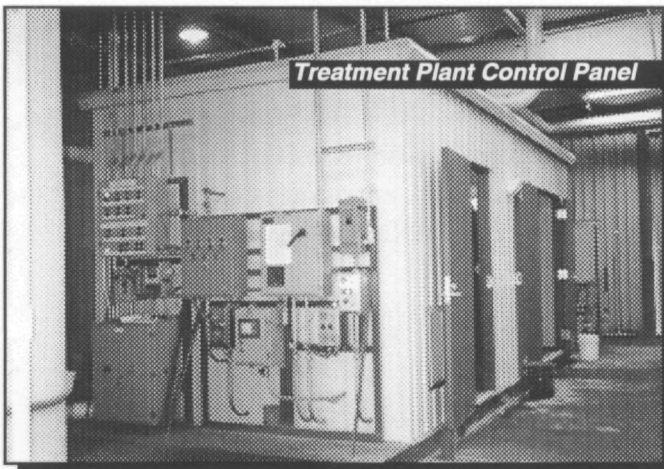
The diagram at the top of this page shows the plant treatment process.

On-site treatment began in May, but water was not discharged to Middle Fork Little Beaver Creek until August, when U.S. EPA and Ohio EPA were satisfied that the treatment process would effectively eliminate mirex from the water. Further plant modifications were made to ensure that treated water meets all waste water discharge requirements. The feeder head was modified to distribute water more evenly over a wider area of carbon beds. In addition, the flow rate of leachate through the plant was decreased to allow more contact time between leachate and carbon, which improves contaminant removal.



Leachate from Drain 1 and surface water from Pond 1 are treated in the plant; leachate from Drain 2 is shipped to an approved waste facility off site.

Drain 2 leachate is shipped off site because it contains high levels of



This Fall, more tests will be done at the site to determine the best locations for the ground-water extraction system. The system will be installed in Spring 1996.

### Update on Other Site Activities

#### Removal Action

The purpose of the removal action is to stop surface water runoff and sediment from leaving the site. The treatment plant as well as the barriers and collection trenches around the site are part of the removal action. Two removal tasks remain to be addressed. One task is to investigate surface water and ground water in the northeast site corner, and the other is to take additional measures to contain leachate and surface water on site.

#### Remedial Investigation

U.S. EPA, in cooperation with Ohio EPA, has taken a comprehensive

approach to the Remedial Investigation and cleanup of the Nease site by looking at the interactive behavior of contaminants throughout the site, instead of dividing the site into separate operable units. U.S. EPA and Ohio EPA have reviewed infor-

mation collected during two additional phases of the Remedial Investigation. The agencies identified gaps in the information that are being addressed this September by additional sediment and flood plain sampling.

Round 3 ground-water sampling will also take place in September. This sampling is done to monitor seasonal variations in the contamination, and to monitor movement of the contamination plume.

The agencies are reviewing the second draft of the Remedial Investigation report, which will be finalized shortly.

#### Risk Assessment

U.S. EPA and Ohio EPA are reviewing the risk assessment and an ecological assessment to determine site cleanup levels.

## Site Background Information

On January 27, 1988, U.S. EPA and Ohio EPA signed an Administrative Order with the Ruetgers-Nease Corporation, requiring the company to conduct an environmental study, called a Remedial Investigation, to identify the types and amounts of pollutants in the air, soil, and water at and near the Nease site. Information collected from this investigation will be used to determine a plan to clean up the site and protect public health and the environment.

During these ongoing site studies, U.S. EPA and Ohio EPA discovered that leachate from the site was moving toward Middle Fork Little Beaver Creek. U.S. EPA and Ruetgers-Nease negotiated an Administrative Order to address this problem. The Order was signed in November 1993. Removal actions at the site, including the treatment plant operation, have been completed as a result of this order.

### Mailing List Additions and Corrections

If you did not receive this fact sheet in the mail, you are not on U.S. EPA's mailing list for the **Nease Chemical** Superfund site. If you would like to add your name to the list, please fill out this form and mail it to:

**Cheryl Allen (P-19J)**  
Community Involvement Coordinator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Affiliation \_\_\_\_\_  
Telephone \_\_\_\_\_





### **Information Repository**

## **Sources For Additional Information**

Additional information about the Nease Chemical Superfund Site can be obtained from the site information repositories. An information repository contains documents used to make Superfund decisions. U.S. EPA encourages citizens to visit the Nease Chemical site information repository at the following locations:

**Columbiana County  
Health Department**  
321 S. Beaver Street  
P.O. Box 396  
Lisbon, Ohio 44432

**Lepper Library**  
303 E. Lincoln Way  
Lisbon, Ohio 44432  
(216) 424-3117

**Salem Public Library**  
821 E. State Street  
Salem, Ohio 44460  
(216) 332-0042

**Citizens may also contact the following people for more information:**

### **U.S. EPA Contacts**

**Cheryl Allen (P-19J)**  
Community Involvement Coordinator  
Office of Public Affairs  
(312) 353-6196

**Sheila Sullivan (HSR-6J)**  
Remedial Project Manager  
Office of Superfund  
(312) 886-5251

**U.S. EPA, Region 5**  
77 West Jackson Blvd.  
Chicago, Illinois 60604  
**Toll Free: 1-800-621-8431**  
10 a.m. - 5:30 p.m., Eastern Time

### **Ohio EPA Contacts**

**Susan Shymske**  
Public Interest Center  
Ohio EPA  
1800 WaterMark Drive  
P.O. Box 1049  
Columbus, Ohio 43266-0149  
(614) 644-2166

**Joseph Trocchio**  
Site Coordinator  
Ohio EPA-Northeast District  
2110 Aurora Road  
Twinsburg, Ohio 44087  
(216) 963-1193



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